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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,060	11/15/2005	Kiyoshi Ohgishi	2005_0702A	5817
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EXAMINER BLOOM, NATHAN J				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/532,060

Applicant(s)

OHGISHI ET AL.

Examiner

NATHAN BLOOM

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-38 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 21-38 is/are rejected.
7) ☒ Claim(s) 26 and 27 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/CDC)
4) ☐ Interview Summary (PTO-413)
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____
Paper No(s)/Mail Date _____

DETAILED ACTION

Applicants' response to the last Office Action, filed on April 24th, 2008 has been entered and made of record.

Response to Arguments

1. Applicant's arguments filed 04/24/2008 have been fully considered but they are not persuasive. Please see the discussion below.
2. In response to applicant's argument that there is no suggestion to combine the references (Iijima and Cheiky), the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Iijima and Cheiky both have taught the capturing of images, masking, and combining the images in order to create a synthesized video image. In particular, Iijima has taught the combination of two single still images and a mask in order to create the synthesized image, whereas Cheiky has taught the masking of a plurality of regions for synthesis with another image (video). It would have been obvious to one of ordinary skill in the art to modify the masking and synthesis techniques of Iijima with the multiple region techniques of Cheiky to increase the number of combinable objects with the background image, thus allowing for greater flexibility in creation of composite images. Furthermore, in view of the KSR rulings it would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the single region masking and synthesis as taught by Iijima with the multiple region approach taught by Cheiky in order to mask and combine a plurality of image regions, with a reasonable expectation for a success.

3. In response to applicant's argument that Hamburg does not disclose a predetermined order of areas (see page 10 paragraphs 1 and 2 of applicant's Remarks), the examiner would like to point to line 65 of column 1 to line 10 of column 10 wherein Hamburg has taught the grouping of layers with user input in order to apply an effect to the image. Also, in lines 40-45 of column 2 Hamburg teaches "compositing a set of ordered layers" which implies that there is a predetermined order to the combination of layers. Furthermore, as per the teachings of Hamburg in lines 7-33 of column 4 the combination of layers can use regional opacity (opacity is a function of position) thus providing a masking and combination effect as taught by Cheiky and Iijima. For example, combining a background image with low opacity in a particular region with another image with a high opacity in the corresponding region of the background image would create a combined masked image as taught by Iijima and Cheiky. Thus, Hamburg has taught the combining of areas in a predetermined order. Furthermore, combining images is interrelating image regions and thus this new limitation has been taught by Iijima, Cheiky, and Hamburg.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 21-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Regarding claims 21-37, the phrase "operable to" render the claims indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d) and § 2173.02. The term operable means "capable of", but stating that a device is capable of performing a task is not the same as stating that it does indeed perform the stated task. Thus it is unclear as to whether the limitation(s) following the phrase are part of the claimed invention. Please amend the claim language to appropriately specify whether the devices perform the stated functions.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 21-25 and 28-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iijima (US 6621524) in view of Cheiky (US 6919892), and in further view of Hamburg (US 6028583).

The rejections of claims 21-25 and 28-38 have been adjusted to reflect the changes in claim language. However, the core of the rejections remain the same in view of the "Response to Arguments" above.

Instant claim 21: A portable terminal that is operable to combine a background image for a background and a captured image that is captured, said portable terminal comprising:

a background image acquiring section operable to acquire the background image; [See *Iijima* line 34 of column 4 to line 22 of column 5 discloses the acquisition of images to be used in the composite image method. Includes camera device as well as stored image data.]

a captured image acquiring section operable to acquire the captured image; [See *Iijima* line 34 of column 4 to line 22 of column 5 discloses the acquisition of images to be used in the composite image method. Includes camera device as well as stored image data.]

a mask information acquiring section operable to acquire mask information in which a plurality of areas for combining the captured image are designated, in response to an instruction of a user; and [*Iijima* in line 20 column 10 to line 54 of column 12 discloses the acquiring of mask patterns (as selected by user), but does not disclose the masking of a plurality of areas. However, as shown by *Cheiky* in Figures 7, 9, 16, lines 56-61 of column 13, and lines 35-45 of column 12 the masking of multiple regions and synthesis of multiple regions to a background image were known to one of ordinary skill in the art (*Cheiky* references *Sako et al* US patent 5689575 that masks multiple regions of an image). It would have been obvious to one of ordinary skill in the art to combine the teachings of *Iijima* with *Cheiky* to increase the number of objects combinable with the background image, thus allowing for greater flexibility in creation of composite images.]

an image combining section operable to combine the captured image and the background image in the plurality of areas designated by the mask information acquired by the mask

information, *[Iijima in line 55 of column 12 to line 10 of column 15 describes the combination of the background, captured, and mask pattern images in order to create a synthesized image.]*

wherein an order of the plurality of areas is predetermined to cause each of the plurality of areas to interrelate with one another, and the image combining section is further operable to combine the captured image in the plurality of areas sequentially according to the predetermined order. *[Iijima in view of Cheiky disclosed the combination of the images, but did not disclose in what order these images (layers) are combined to create the composite image. The creation of a composite image is a processing of combining the images (layers), and defining the order of combining layers (images) was well known to one of ordinary skill in the art as is shown by Hamburg whom in figures 1-9 depicts the process of combining image layers to create intermediate images (partially completed images). Furthermore, in line 66 of column 1 to line 10 of column 2 Hamburg identifies that user may wish to group (combine) layers (images) together to work with each group as a single entity. The grouping of layers (images) in a predetermined order allows for the creation of intermediate images that show the progress of the image processing after each particular stage of the interrelation (combination) of image areas. Thus it would have been obvious to one of ordinary skill in the art to combine the teachings of Iijima and Cheiky with Hamburg to give the user control (or automatically determine) of the order that the images are processed. Furthermore, one of ordinary skill in the art recognizes that giving user control of a process allows for further optimization of the image such that the output image suits the users' need.]*

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Instant claim 22: The portable terminal according to claim 21, wherein the image combining section is further operable to change the order of the plurality of areas in which the captured image is to be combined, in response to an instruction of a user. [*See rejection of claim 22 wherein user has control of the order in which the images are processes.*]

Instant claim 23: The portable terminal according to claim 21, further comprising a background image creating section operable to create the background image by displaying a captured image acquired by the captured image acquiring section as a moving image while displaying one of the plurality of areas area designated by the mask information entering the captured image. [*See Cheiky figure 1 wherein the captured image of the eyes and mouth are obtained by the video camera object 28.*]

Instant claim 24: The portable terminal according to claim 23,
wherein the background image creating section is further operable to link the created background image with the mask information that has been used when creating the background image, and

when the background image is linked with mask information, the mask information acquiring section is further operable to acquire the linked mask information. [*See figure 6A (background image) which is combined with figure 6B (image mask) to create a linked mask image in figure C (synthesized image).*]

Instant claim 25: The portable terminal according to claim 21, further comprising:

an intermediate information creating section operable to generate intermediate information showing a halfway state in image-combining generated by the image combining section, and

an intermediate information transmitting section operable to transmit the intermediate information created by the intermediate information generating section to an external device. *[As per rejection of instant claim 21 Hamburg discloses the creation of intermediate images, and it is inherent to the image processing that at each step these are stored in a buffer or memory device of some sort before further processing is performed. However, the storing of intermediate images was not disclosed by Hamburg. Examiner takes official notice that it was notoriously well known to one of ordinary skill in the art to externally store an image that is normally stored internally, and that this method of storing provides a back-up source in case of data loss.]*

Instant claim 28: The portable terminal according to claim 21,

wherein the image combining section is further operable to combine the captured image acquired by the captured image acquiring section such that the captured image is displayed as a moving image in one of the plurality of areas. *[As per rejection of claim 23 Cheiky teaches the use of video images as the captured image displayed in the selected region of the background image.]*

Instant claim 29: The portable terminal according to claim 28,

wherein, in response to an instruction of a user, the image combining section is further operable to enter the captured image displayed as a moving image and is further operable to

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combine the background image and the captured image. *[See rejection of claims 23 and 28 (for further information see Cheiky et al).]*

Instant claim 30: The portable terminal according to claim 21,

wherein the background image is linked with the mask information, and the mask information acquiring section is further operable to acquire mask information that is linked with the background image. *[This is inherent to the process performed by Iijima in which the taken image is masked (cutout) and then the through image is combined with the masked image (cutout image) to create the composite. If Iijima did not perform this step then there would be no masked image to form the composite image.]*

Instant claim 31: The portable terminal according to claim 21, further comprising a background image storing portion operable to store at least one of a plurality of background images,

wherein the background image acquiring section is further operable to acquire the background image from the background image storing portion. *[All images, the background (through image), foreground (cutout), and mask patterns are stored in the system described by Iijima. See figures 1-2 and the descriptions of these provided in columns 4-6 of Iijima. Also, see Cheiky column 23 lines 10-20 wherein the background (head template) image is acquired and stored.]*

Instant claim 32: The portable terminal according to claim 21, further comprising a camera portion operable to capture an image,

wherein the background image acquiring section is further operable to acquire an image captured by the camera portion as the background image. [*See Cheiky as referred to in rejection of claim 31.*]

Instant claim 33: The portable terminal according to claim 21, further comprising a communication portion operable to communicate with an external device,

wherein the background image acquiring section is further operable to acquire the background image from an external device via the communication portion. [*See rejection of claims 31 and 32 by Cheiky wherein the camera is an external device and the background image produced by the camera is inherently acquired via electronic communication between the camera and image-processing device.*]

Instant claim 34: The portable terminal according to claim 21, further comprising a camera portion operable to capture an image,

wherein the captured image acquiring section is further operable to acquire an image captured by the camera portion as the captured image. [*See Cheiky lines 20-54 of column 23, and columns 4-6 of Iijima wherein the acquisition of images is done via a camera.*]

Instant claim 35: The portable terminal according to claim 21, further comprising a communication portion operable to communicate with an external device,

wherein the captured image acquiring section is further operable to acquire the captured image from an external device via the communication portion. [*As per rejection of claim 34 the*

acquisition of the images via an external device (camera) was known. Furthermore, the communication between the device and the image processing means is inherent since the transferring of data between these devices requires a communication device.]

Instant claim 36: The portable terminal according to claim 21, further comprising a mask information storing portion operable to store at least one mask information image,

wherein the mask information acquiring section is further operable to acquire the mask information from the mask information storing portion. *[See object 14B labeled "Mask Pattern Memory" of Figure 1 in Iijima which is the memory that stores the mask patterns (at least one) that are acquired by the image processing device as part of the image synthesis method. See steps a-h and i-m of the image processing method summarized in columns 2-3 of Iijima.]*

Instant claim 37: The portable terminal according to claim 21, further comprising a communication portion operable to communicate with an external device,

wherein the mask information acquiring section is further operable to acquire the mask information from an external device via the communication portion. *[Iijima shows in Figure 2 and internal memory device for storing the mask patterns and further shows as per the diagram the communication paths for the data (existence of communication portion), but Iijima does not disclose the use of an external memory device for the mask patterns. However, Examiner takes Official Notice that it was notoriously well known to one of ordinary skill in the art to store data in an external device and that this gives the advantage of being removable and/or changeable whereas an internal memory device is often a permanent fixture.]*

Instant claim 38: The method described by claim 38 is accomplished by the apparatus of claim 21, and as per rejection of claim 21 this system has been disclosed. Therefore, the method accomplished by the system was also known to one of ordinary skill in the art.

Allowable Subject Matter

9. Claims 26-27 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Bloom whose telephone number is 571-272-9321. The examiner can normally be reached on Monday through Friday from 8:30 am to 5:00 pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehta Bhavesh, can be reached on 571-272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Brian Q Le/

Primary Examiner, Art Unit 2624